

IN THE CLAIMS:

✓  
Please cancel Claims 1-4 without prejudice to the filing of continuations or divisionals.

✓  
Please add the following new claims.

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C1 > 5. (New) A high bandwidth, scalable server for storing, retrieving, and transporting multimedia data to a client in a networked system, said server comprising:

an upstream manager receiving messages from said client and routing said messages to an appropriate service on said server;

a downstream manager sending a stream of said multimedia data from said appropriate service on said server to said client; and

A<sup>2</sup> a connection service for maintaining information to connect said client, said upstream manager, said downstream manager, and said appropriate service on said server.

6. (New) The server in Claim 5 wherein said connection service further creates a virtual circuit between an upstream address and a downstream address for said client.

7. (New) The server in Claim 6 wherein said connection service also manages said virtual circuit.

8. (New) A computer-implemented method for retrieving and transporting multimedia data between a client and a server on a network, said computer-implemented method comprising the steps of :

issuing a client request for initialization in a message to an upstream manager in said server;

obtaining an upstream physical address for said client as said client request enters said server;

*a<sup>2</sup>* allocating a downstream physical address and downstream logical address to said client corresponding to the upstream physical address obtained for said client; and

updating a connection service table with said upstream physical address, said downstream physical address, and said downstream logical address for said client.

9. (New) The computer-implemented method in Claim 8 wherein further comprising the steps of:

issuing a service request message from said client to said server via said upstream manager, said service request message including said client downstream logical address and a service destination logical address;

generating a response message from said server to said client, said response message including said client downstream logical address; and sending said response message to said client via said downstream manager.

10. (New) The computer-implemented method in Claim 9 wherein said step of updating said connection service with said upstream and downstream addresses for said client includes the step of creating a virtual circuit between said upstream and downstream addresses for said client.

a<sup>2</sup>  
11. (New) The computer-implemented method in Claim 10 wherein said step of creating said virtual circuit between said upstream and downstream addresses for said client further includes the step of managing said virtual circuit.

12. (New) The computer-implemented method in Claim 11 wherein said step of managing said virtual circuit includes the steps of:

creating a routing table containing said client downstream logical address and a corresponding client downstream physical address;

accessing said connection service table; and

utilizing information in said routing table and said connection service table to route said client service request message from said client to said

server and to route said response message from said server to said client via said downstream manager.

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13. (New) The computer-implemented method in Claim 8 wherein  
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said request for initialization to said upstream manager is a Remote  
Procedure Call (RPC).

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14. (New) A computer-implemented method for scalable, high bandwidth  
storage, retrieval and transportation of multimedia data on a network, said  
computer-implemented method comprising the steps of:

a<sup>2</sup>  
storing only one copy of said multimedia data in a data repository  
wherein said only one copy of said multimedia data is available for retrieval  
concurrently by multiple clients;

retrieving said only one copy of said multimedia data from said data  
repository in response to requests from said multiple clients; and

transporting contents of said only one copy of said multimedia data  
from said data repository to said multiple clients, said only one copy of said  
multimedia data being accessed repeatedly to concurrently service said  
requests from said multiple clients.

15. (New) The computer-implemented method in Claim 14 wherein  
the step of retrieving said only one copy of said multimedia data from said  
data repository further comprises the steps of:

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routing said requests from said multiple clients to a real-time scheduler;

analyzing said requests to determine a load on said network and said data repository;

determining when said requests can be granted based on said load; and  
scheduling access to said multimedia data based on said step of determining.

16. (New) The computer-implemented method in Claim 14 wherein said multimedia data includes Binary Large Objects (BLOBs).

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C3  
17. (New) A high bandwidth, scalable server for storing, retrieving, and transporting multimedia data to a client in a networked system, said server comprising:

means for storing only one copy of said multimedia data in a data repository wherein said only one copy of said multimedia data is available for retrieval by multiple clients;

means for retrieving said only one copy of said multimedia data from said data repository in response to requests from said multiple clients; and

means for transporting contents of said only one copy of said multimedia data from said data repository to said multiple clients, said only one copy of said multimedia data being accessed repeatedly to concurrently service said requests from said multiple clients.